Notice of Allowability	Application No.	Applicant(s)	
	10/827,005	BODO ET AL.	
	Examiner	Art Unit	
	PHUNG-HOANG J. NGUYEN	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendmend filed 10/22/08*.

2. ☒ The allowed claim(s) is/are *1,3-10,12-15,19-20,22-23 and 25-27*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Donald Schreiber on Dec. 23, 2008.

3. Claims 1 have been amended as follows:

1. (Currently amended) A digital logger system adapted for receiving and recording audio telecommunication signals, the digital logger system comprising:

a multichannel interface circuit ~~adapted~~ for concurrently and continuously receiving audio telecommunication signals for at least two telephone calls, and for continuously transmitting digital audio data extracted from the received audio telecommunication signals, the multichannel interface circuit including:

a. line interfaces, equal in number to the number of telephone lines from which the multichannel interface circuit receives audio telecommunication signals, for electronically conditioning the received audio telecommunication signals; and

b. at least one COder and DECoder ("CODEC") which receives conditioned audio telecommunication signals from the line interfaces for converting the received audio telecommunication signals into digital audio data, and for transmitting the digital audio data;

a Universal Serial Bus ("USB") hub for receiving the digital audio data continuously transmitted from the multichannel interface circuit, and for transmitting the digital audio data to a USB root hub; and

a personal computer ("PC") having the USB root hub that is coupled to the USB hub, and which:

receives the digital audio data transmitted from the USB hub; and

executes PC software that continuously monitors the received digital audio data for:

decoding line status and signaling information embedded in digital audio data to determine status of a telephone line including a telephone line "going off hook;" and

upon detecting a telephone line "going off hook," recording both:

an audio header that stores information about a telephone call; and

an audio file that stores compressed digital audio data for the telephone call.

3. (Currently amended). The digital logger system of claim ~~2~~ 1 wherein the CODEC is a stereo analog CODEC which simultaneously converts two separate received audio telecommunication signals into two separate digital audio data, and transmits both of the digital

audio data to the USB hub.

4. (Currently amended) The digital logger system of claim ~~2~~ 1 wherein the CODEC is a linear Pulse Code Modulation ("PCM") CODEC.

10. (Currently amended) A signal processor adapted for use with a PC that includes a USB root hub, and that executes PC software for continuously monitoring digital audio data received via the USB root hub of audio telecommunication signals, the PC software:

decoding line status and signaling information embedded in digital audio data to determine status of a telephone line including a telephone line "going off hook;" and

upon detecting a telephone line "going off hook," recording both:

an audio header that stores information about a telephone call; and

an audio file that stores compressed digital audio data for the telephone call;

the signal processor comprising:

a multichannel interface circuit ~~adapted~~ for concurrently and continuously receiving audio telecommunication signals for at least two telephone calls, and for continuously transmitting digital audio data extracted from the received audio telecommunication signals, the multichannel interface circuit including:

a. line interfaces, equal in number to the number of telephone lines from which the multichannel interface circuit receives audio telecommunication signals, for electronically conditioning the received audio telecommunication signals; and

b. at least one CODEC which receives conditioned audio telecommunication signals from the line interfaces for converting the received audio telecommunication signals into digital audio data, and for transmitting the digital audio data; and

a USB hub for receiving the digital audio data continuously transmitted from the multichannel interface circuit, and for transmitting the digital audio data to the USB root hub of the PC.

12. (Currently amended) The signal processor of claim ~~11~~ 10 wherein the CODEC is a stereo analog CODEC which simultaneously converts two separate received audio telecommunication signals into two separate digital audio data, and transmits both of the digital audio data to the USB hub.

13. (Currently amended) The signal processor of claim ~~11~~ 10 wherein the CODEC is a linear PCM CODEC.

15. (Currently amended) In a digital logger system adapted for receiving and recording audio telecommunication signals, the digital logger system including a PC which executes PC software that:

monitors digital audio data of audio telecommunication signals for line status and signaling information embedded in digital audio data to determine status of a telephone line including a telephone line "going off hook;" and

upon detecting a telephone line "going off hook," records both:

an audio header that stores information about a telephone call; and

an audio file that stores compressed digital audio data for the telephone call,

the improvement comprising:

a search engine which, upon decoding of appropriate signaling information for a telephone call that is selected from a group consisting of DTMF signaling, ANI (also known as CID), and ALI, initiates a real-time reverse-lookup that accesses publicly accessible directories and business information.

19. (Currently amended) A digital logger system adapted for receiving and recording audio telecommunication signals, the digital logger system comprising:

a. an interface circuit that includes:

i. a line interface for electronically conditioning the received audio telecommunication signal; and

ii. a CODEC, ~~the interface circuit being adapted for receiving an audio telecommunication signal for at least one telephone call,~~ for receiving the conditioned audio telecommunication signal, for converting the received audio telecommunication signal into linearly coded digital audio

data, and for transmitting the linearly coded digital audio data extracted from the received audio telecommunication signal; and

b. a PC which:

i. receives the linearly coded digital audio data transmitted from the interface circuit; and

ii. executes PC software that monitors the received digital audio data for:

A. decoding line status and signaling information embedded in digital audio data to determine status of a telephone line including a telephone line "going off hook;" and

B. upon detecting a telephone line "going off hook," recording an audio file that stores digital audio data for the telephone call after first converting the linearly coded digital audio data into μLaw compressed digital audio data.

23. (Currently amended) A method for receiving and recording audio telecommunication signals, the method comprising the steps of:

a. within a signal processor:

i. concurrently and continuously receiving an audio telecommunication signal for at least one telephone call;

ii. electronically conditioning the received audio telecommunication signal;

~~b.~~ iii. converting the ~~received~~ conditioned audio telecommunication signal into linearly coded digital audio data;

~~c.~~ iv, continuously transmitting the linearly coded digital audio data extracted from the received audio telecommunication signals to a PC;

~~d~~ b. within the PC:

i. receiving the linearly coded digital audio data;

ii. continuously monitoring the received digital audio data:

iii. decoding line status and signaling information embedded in the continuously monitor digital audio data to determine status of a telephone line including a telephone line "going off hook;" and

iv. upon detecting a telephone line "going off hook," recording both:

A) an audio header that stores information about a telephone call; and

B) an audio file that stores compressed digital audio data for the telephone call.

Claims 2, 11, 16-18, 21 and 24 have been cancelled.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUNG-HOANG J. NGUYEN whose telephone number is (571)270-1949. The examiner can normally be reached on Monday to Thursday, 8:30AM - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571 272 7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CURTIS KUNTZ/

Supervisory Patent Examiner, Art Unit 2614

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